

REMARKS

This Amendment is filed in response to the Office Action dated June 26, 2009 (the "Office Action").

STATUS OF THE CLAIMS

Claims 1-9 were pending at the date of the Office Action, and all claims stand rejected.

PRIOR ART REJECTIONS

The Office Action rejects all of the claims under 35 U.S.C. § 103(a). Under 35 U.S.C. § 103, the Patent Office bears the burden to establish a *prima facie* case of obviousness. *In re Fine*, 837 F.2d 1071, 1074 (Fed. Cir. 1988). According to the Office's promulgated guidelines and the controlling law, three basic criteria must be met to establish a *prima facie* case of obviousness:

- First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings;
- second, there must be a reasonable expectation of success; and
- third, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

See, e.g., M.P.E.P. § 2143. In applying these criteria, the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in the applicant's disclosure. *In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991). Additionally, if the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 (Fed. Cir. 1984); *see also*, M.P.E.P. § 2143.01. Similarly, if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810

(CCPA 1959).

An “expansive and flexible approach” should be applied when determining obviousness based on a combination of prior art references. *See, e.g., KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, at 1739 (2007). However, a claimed invention combining multiple known elements is *not* rendered obvious simply because each element was known independently in the prior art. *Id.* at 1741. Rather, there must still be some “reason that would have prompted” a person of ordinary skill in the art to combine the elements in the specific way that he or she did. *Id.*; *In re Icon Health & Fitness, Inc.*, 496 F.3d 1374, 1380 (Fed. Cir. 2007). Similarly, modification of a prior art reference may be obvious only if there exists a reason that would have prompted a person of ordinary skill to make the change. *KSR*, 127 S. Ct. at 1740-41. Stated differently, the mere fact that references *can* be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680 (Fed. Cir. 1990).

As explained in more detail below, the claim rejections are respectfully traversed because they do not satisfy various aspects of the obviousness inquiry.

Independent Claim 1 and claims depending therefrom

Claims 1, 2 and 7-9 are rejected as allegedly being unpatentable over U.S. Pat. No. 7,013,528 (“Parker”) in view of U.S. Pub. No. 2004/0134016 (“Kisela”). This rejection is respectfully traversed.

Parker discloses a floor cleaner having a rotating brush (32) and a dust pad assembly (20) that holds a cleaning cloth. There are two versions of the Parker device: one uses a conventional low-power cordless vacuum fan assembly (52) that is powered by a battery pack (76), *see* Parker, Figs. 1-17, and the other uses a dirt-throwing arrangement in which a brush (174) projects dirt into an open dust collection bin (176) behind the brush. *Id.*, Figs. 18-19. In all cases, the brush (32/174) is located in front of the dust pad assembly (20), so that the brush cleans large particles from the floor, and the dust pad assembly cleans smaller particles.

Kisela discloses a floor cleaner having a cleaning head (12) that holds a cleaning fabric pad (70), as well as a fluid deposition system having two sprayers (22, 24). A vacuum fan (30)

and suction nozzle (18) are also provided on the device. The device has two separate and distinct modes of operation. In the “spraying/mopping” mode, the suction nozzle (18) is lifted up, and the sprayers (22, 24) distribute fluid in front of the pad (70). *See, e.g.*, Kisela at ¶¶ 61-64. Fluid is not sprayed during the suction mode, *see, id.*, at ¶ 59 (describing flow being cut off either by closing valve (134) or turning off pump (38) during suction mode), but even if it is, the nozzle (18) is rotated up and away from the surface so that “cleaning fluid from the spray nozzles 22, 24 is not sucked directly into the suction nozzle 18 just after it is sprayed out through the nozzles 22 and 24 in the wet floor cleaning mode.” *Id.* at ¶ 68.

The Office Action provides the following alleged motivation in support of combining Parker and Kisela:

One of ordinary skill in the art could have applied the known technique of providing a floor cleaning device with a liquid container and means formed as nozzles for distributing liquid directly or indirectly to cloth, as taught by Kisela et al., in the same way to the device, of Parker et al., and the results would have been predictable. In this situation, one could provide a liquid delivery system attached to a cloth holder for delivering liquid onto the surface thereby more effectively removing material from the surface during cleaning.

Office Action at 3. With all due respect, this basis for combining the references is flawed. To begin with, the rejection appears to be nothing more than a conclusory statement that the references can be combined, with an unsupported argument that doing so would “more effectively remove material from the surface during cleaning.” The Office Action does not explain, in any way, how the combination of these references would provide more effective cleaning, and gives no basis for the conclusion that a person of ordinary skill in the art would have known this fact prior to the present application. It is well settled that a cursory statement such as this is insufficient to establish *prima facie* obviousness. *See* M.P.E.P. § 2143.01.IV.

Furthermore, the Office Action overlooks several problems with the proposed combination. The claims of the present invention recite “the dust collecting container being adapted to receive, via a dust inlet (23), dust particles thrown by the brush arrangement (15).” Thus, the present invention operates by throwing the dust and dirt into a rear chamber. In this regard, a similar arrangement is shown in Parker’s Figures 17 and 18, which show a brush (174)

that projects dirt into an open dust collection bin (176) behind the brush.¹ If one were to modify this embodiment Parker (or other embodiments, for that matter), by installing the liquid container (36) and nozzles (22, 24) of Kisela, significant problems would arise. Primarily, the liquid would soak the floor and any dirt in front of the brush, making it significantly more difficult to throw the dirt into the dust collection bin. The wet particles would tend to hydrostatically adhere to the brush, particularly where smaller particles and dust are present, and the brush would spray the liquid and dirt in all directions. The resulting wet dirt spray would be unattractive and unsanitary, and may work into the seams of the machine to reach the electronics. Adding water to the dirt also would cause it to accumulate into large clumps that, are likely to be too heavy to project all the way to the bin even if they do dislodge from the brush. Such clumps would have to be removed by the cleaning pad, which may not be possible given that such pads typically are used to clean only light amounts of dirt. In short, wetting the dirt and then striking it with the rotating brush would create a significant mess, clearly would reduce the dirt-collecting capabilities of the Parker device. The same problems would exist even in the vacuum-operated versions of the Parker device, which has a conventional vacuum inlet at one end of the brush that would be unable to pull the heavy wetted dirt off of the brush and into the inlet. This is particularly true given that Parker is intended to be a lightweight battery-operated device.

In view of the foregoing, the Applicant respectfully submits that there is no *prima facie* case of obviousness because it would render the Parker device unsatisfactory for its intended purpose, and the problems associated with the combination would teach away from the combination, rather than support it.

Dependent Claim 3 and claims depending therefrom

Claims 3-6 are rejected as allegedly being unpatentable over the combination of Parker

¹ In forming the rejections, the Office Action appears to rely on the vacuum-operated version of the Parker device shown in Figures 1-16, but that device does not appear to be a sweeper that operates by throwing the dirt into the dust collecting container — rather, it operates by drawing the dirt in via suction. In fact, Parker specifically states that the inlet (94) to the dirt chamber in the embodiments of Figures 1-6 is closed by a flap (92) that is opened by a vacuum-generated airflow. *See* Parker, col. 5, ll. 36-40. Nevertheless, Parker does disclose an alternative embodiment of the type generally recited in the present claims, in which dirt is thrown into the container by a brush.

and Kisela, in further view of U.S. Pat. No. 3,319,278 (“Frazer”). These rejections are also respectfully traversed.

Claim 3 requires the cleaner to have two brush rolls with non-parallel axes. To allegedly invalidate this claim, the Office Action relies on Frazer, stating that the results would have been predictable, and that “one could provide a cleaning device with brushes arranged in a V-shape with the vertex angle being selectively adjustable between acute and obtuse angles thereby more effectively removing material from the surface being cleaned.” Office Action at 4. There are a number of problems with this proposed combination. First, the Office Action again provides no basis for either the allegation that the result would be predictable, or, more importantly, that persons of ordinary skill in the art would have recognized the value of the combination prior to the present invention. Thus, the unsupported and speculative argument does not rise to the level of *prima facie* obviousness. *See* M.P.E.P. § 2143.01.IV.

Furthermore, once again there are technical problems with the actual combination that are not addressed or acknowledged in the rejection. First, the Frazer device is a non-motorized brushroll, whereas the brush in Parker is motorized. Nothing in either reference teaches or reasonably suggests how one could make a multi-part brushroll like the one in Frazer motorized, particularly when Frazer specifically requires the brushroll to be movable between various angles. Thus, there is no reasonable expectation that the combination would be successful, because there’s absolutely no teaching of how to actually combine the two teachings. In addition, the Frazer device is specifically intended for use on *rugs*, *see*, Frazer, Title (“Rug Cleaning Apparatus”), whereas Parker is intended for use on hard floors. *See*, Parker at col. 1, ll. 15-17. Frazer teaches that the angle can be changed to change the resistance of the brush to various depth carpets. Frazer at col. 1, ll. 46-52. However, Frazer says nothing about how making such a change would somehow help clean hard floors, which have not rug piles to catch on the brushes. Thus, it is not clear how the Office Action concludes that adding Frazer would somehow improve the performance of the Parker device. Furthermore, the Office Action overlooks the significant problem that using two unaligned motorized brushes leads to the problem that the brush with the greatest load on it will tend to pull the cleaner along its direction of rotation, and thus using angled brushes on Parker could lead to steering issues that are likely

to teach away from the proposed combination.

In view of the foregoing, the Applicant respectfully submits that there is no *prima facie* case of obviousness because there is no reasonable expectation that the combination would be successful (because it is not even taught how to make the combination work), and problems like steering issues caused by non-parallel brushes would teach away from the combination or render the Parker device unsatisfactory for its intended purpose.

Dependent Claim 9 and claims

Dependent claim 9 is rejected based on the combination of Parker and Kisela discussed above. In addition to the foregoing reasons, the rejection of claim 9 is defective for at least the following reasons.

Claim 9 has multiple dependency to claim 7 or 8. Depending from claim 7, claim 9 recites a liquid container that is an integrated part of the cloth holder, and that the cloth holder is removably arranged on the base. The prior art fails to disclose or reasonably suggest either (a) a liquid container that is integral with the cloth holder, or (b) a liquid container that is mounted on a removable cloth holder.

For the liquid container limitation, the Office Action relies on the Kisela reference. Kisela shows a liquid container on the handle, not on the base, and certainly not on the cleaning pad holder itself. The Office Action contends that “one could provide a liquid delivery system attached to a cloth holder for delivering liquid onto the surface thereby more effectively removing material from the surface during cleaning.” However, as noted before, there is no basis for this argument. In fact, considering the complete lack of prior art showing any kind of liquid container mounted to a cloth holder on a floor sweeping device the rejection appears to be based on hindsight reconstruction of the prior art based solely on the Applicant’s disclosure. Thus, it is respectfully submitted that this rejection is not proper and fails to establish *prima facie* obviousness. *See M.P.E.P. § 2143.01.IV.*

Furthermore, the proposed combination would lead to additional technical problems not addressed by the Office Action. For example, the Office Action does not state how the plumbing of the Kisela device could be modified to somehow permit the liquid container to be mounted on

the pad, how the fluid flow would be controlled as required by Kisela, or how to otherwise make the device operate. With all of these questions unanswered in the prior art (and in the Office Action), there simply is no reasonable expectation that the proposed modification would be successful. Furthermore, the Office Action does not explain how to make a *removable* cloth holder with a fluid tank on it. Such modifications go well beyond the teachings in the cited art, which does not teach or reasonably suggest how to make such modifications. As the Courts and the USPTO acknowledge, “if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.” *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727 (2007); M.P.E.P. § 2143.III (citing *KSR*). Here, the Office Action does not even find that the technique in question has been used in the past, much less that it would be obvious to use it in this case, or that is would be within the skill of the person of ordinary skill in the art.

In view of the foregoing, the Applicant respectfully submits that there is no *prima facie* case of obviousness because the alleged combination fails to teach all of the claim limitations, the proposed modification goes well beyond any of the teachings in the cited art, and there is no reasonable expectation that the modification would be successful.

New Claims

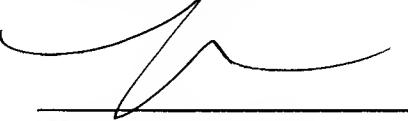
New claim 10 recites the subject matter of claims 1-3, as written in independent form. New claims 14 and 16 recite the subject matter of original claims 1, 7 and 9, rewritten in two different ways having different scopes. The remaining new claims are dependent claims that recite the same subject matter as previously-presented dependent claims. The new claims add no new matter and should require no further searches. These claims are believed to be allowable for at least the reasons provided above.

CONCLUSION

For at least the foregoing reasons, the Applicant respectfully requests reconsideration of the pending rejections, and allowance of the claims. If the Examiner believes that prosecution might be advanced by discussing the application with the Applicant's counsel, in person or by telephone, the Applicant's counsel welcomes the opportunity to do so.

Respectfully submitted,
Hunton & Williams LLP

By:


Michael P.F. Phelps
Registration No. 48,654

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Hunton & Williams LLP
1900 K Street, N.W.
Washington, D.C. 20006-1109
Telephone: (202) 955-1500
Facsimile: (202) 778-2201